

PATENT

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INVENTION: Waterproof Catamenial Related Product Container

5 INVENTOR: L. Marie Krey

FIELD OF THE INVENTION

The present invention relates generally to the field of catamenial related product containers and, more particularly, to a waterproof, crush resistant container for storing and transporting multiple catamenial required products in a safe, convenient, orderly
10 environment.

BACKGROUND OF THE INVENTION AND THE PRIOR ART

During menses, women typically carry many items with them for sanitary and health purposes. These items can include tampons for protection, feminine wipes for sanitary purposes, and pharmaceuticals for the relief of catamenial related maladies.
15 Many women carry these catamenial related products in their purses, briefcases, or pockets where they can easily become damaged and rendered unusable, or misplaced. Occasionally, women will not take the products with them because there is no convenient or safe way to store them. This can lead to embarrassment if the situation arises that the products are needed.

20 The problems are compounded in the case of active women. Active women have the additional worry that required items will become soiled or ruined by exposure to water, snow, sleet, dirt, or any number of other environmental conditions. Also, storage space is often at a premium when an individual is camping or participating in water

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sports such as rafting, canoeing, sailing, or swimming or in other outdoor activities like biking or hiking.

Over the years, several methods and apparatuses have been proposed to provide means of carrying catamenial related items. For example, a wallet-like carrying case
5 having a pocket therein for the insertion of catamenial related products is disclosed in U.S. Pat. No. 4,286,639 to Murphy. However, the case is essentially flat, does not provide crush resistance for the product held therein, and is intended to disguise the catamenial related product from the general view of the public.

Another carrying case is disclosed in U.S. Pat. No. 5,046,620 to Barabino. This
10 multi-compartmental carrying case includes a partition to separate catamenial related products from more frequently accessed items such as cosmetics. Again, a product held within the separated storage area is susceptible to being crushed as the device is not crush resistant.

Both of these prior art examples, while illustrating the need for catamenial
15 storage and transporting devices, do not offer crush resistant protection nor are they waterproof.

A further advance in the art field is seen in U.S. Patent No. 5,988,386 to Morrow. This device is essentially a two-piece plastic tube with closed ends. However, it takes on the size and shape of a tampon and must be carried within a purse, briefcase, or pocket
20 purse. Additionally, such a container makes no provision for other catamenial related products such as moistened towelettes or pharmaceuticals.

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The unifying feature of the prior art is that they all relate to devices that discreetly enable a women to carry catamenial related products. However, women are increasingly finding that it is not embarrassing to carry catamenial related products in public.

Additionally, women are also becoming more active in extracurricular activities;

5 activities that require they carry catamenial related products in a manner appropriate to the activity. Oftentimes this means they need the ability to store many items in clean, crush resistant, convenient, and waterproof manner. Therefore, a new and improved technology is needed to provide active women more freedom and flexibility in their everyday affairs, so that they are no longer tied down to their purses, backpacks,
10 briefcases, and the like. The present invention meets this need.

OBJECTS AND ADVANTAGES OF THE PRESENT INVENTION

It is an object of the present invention to provide a watertight container for catamenial related products.

It is another object of the present invention to provide a crush resistant container
15 for catamenial related products.

It is still another object of the present invention to provide a portable container for catamenial related products.

It is still yet another object of the present invention to provide a portable container for simultaneously storing many different types of catamenial related products.

20 It is yet another object of the present invention to provide a portable container for catamenial related products specially suited for active women.

It is yet another object of the present invention to provide a portable container for catamenial related products that can be affixed to clothing, belts, belt loops, necklaces, key chains, backpacks, or the like, in order to allow active women more freedom and flexibility in their everyday affairs.

5 SUMMARY OF THE INVENTION

The present invention therefore relates to a new and improved storage and transport apparatus for multiple catamenial related products, specially suited for active women. More specifically, the present invention relates to an improved portable, crush resistant and watertight closure for such products. In this respect, before explaining the preferred embodiment of the present invention in detail, it is to be understood that the present invention is not limited in its application to the details of construction and to the arrangements of the components set forth in the following description or illustrated in the drawings. The present invention is capable of other embodiments and of being practiced and carried out in various ways. Also, it is to be understood that the phraseology and terminology employed herein are for the purpose of description and should not be regarded as limiting.

There has been outlined, rather broadly, the more important features of the invention in order that the detailed description thereof that follows may be better understood, and in order that the present contribution to the art may be better appreciated. There are, of course, additional features of the invention that will be described hereinafter and that will form the subject matter of the invention.

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As such, those skilled in the art will appreciate that the conception, upon which this disclosure is based, may readily be utilized as a basis for the designing of other structures, methods and systems for carrying out the several purposes of the present invention. It is important, therefore, that the claims be regarded as including such
5 equivalent constructions insofar as they do not depart from the spirit and scope of the present invention.

Further, the purpose of the foregoing abstract is to enable the U.S. Patent and Trademark Office and the public generally, and especially the scientists, engineers and practitioners in the art who are not familiar with patent or legal terms or phraseology, to
10 determine quickly from a cursory inspection the nature and essence of the technical disclosure of the application. The abstract is neither intended to define the invention of the application, which is measured by the claims, nor is it intended to be limiting as to the scope of the present invention in any way.

These together with other objects of the present invention, along with the various
15 features of novelty which characterize the present invention, are pointed out with particularity in the claims annexed to and forming a part of this disclosure. For a better understanding of the present invention, its operating advantages and the specific objects attained by its uses, reference should be had to the accompanying drawings and descriptive matter in which there is illustrated a preferred embodiment of the present
20 invention.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a view of the preferred container.

FIG. 2 is a view of an exploded perspective of container.

FIG. 3a is a view along line 3a-3a in FIG. 1 showing a tampon being enclosed within first
5 chamber A.

FIG. 3b is a view along line 3b-3b in FIG. 2 showing the enclosed end of body.

FIG. 4 is a view along line 4-4 in FIG. 1 showing pharmaceuticals being enclosed within
second chamber B and feminine wipes being enclosed within third chamber C.

FIG. 5 is a view along line 5-5 in FIG. 4 further showing the partition being positioned
10 between second chamber B and third chamber C.

FIG. 6 is a view of an alternative embodiment of container where the receptive member is
positioned along body.

FIG. 7 is a view of an alternative embodiment of container where the body is formed in
generally a triangular shape.

15 FIG. 8 is a view along line 8-8 in FIG. 7 showing pharmaceuticals being enclosed within
alternative second chamber B' and feminine wipes being enclosed within alternative third
chamber C'.

FIG. 9 is a view along line 9-9 in FIG. 7 showing tampons being enclosed within
alternative first chamber A'.

20 FIG. 10 illustrates a prepackaged moistened towelette designed to fit in the second
compartment or the third compartment of the container base.

FIG. 11 illustrates a moistened towelette separated from the packaging and in an open position.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

5 FIG. 1 is a view of the preferred container 10. In the preferred embodiment, the container 10 has a body 12. Although the shape of body 12 in the preferred embodiment is generally cylindrical, body 12 can take on many different shapes. For example, an alternative generally triangular body 62 is shown in FIG. 7.

 In the preferred embodiment, as shown in FIG. 1, a first cap 14 and second cap 16
10 are removably attached to body 12. First cap 14 has a receptive member 18 attached, which permits attachment of container 10 to clothing, belts, belt loops, necklaces, key chains, backpacks, or the like, in order to allow active women more freedom and flexibility in their everyday affairs. Receptive member 18 is preferably formed along the top edge 17 of first cap 14 and has an aperture 19 which permits a keychain, swivel snap,
15 or the like to pass there through. However, those in the art would readily understand that the receptive member 18 can be any type of mechanism that permits attachment to clothing, belts, belt loops, necklaces, key chains, backpacks, or the like. Alternatively, the receptive member 18 may be placed anywhere along container 10, as long as such placement permits active women more freedom and flexibility. For example, an
20 alternative embodiment is shown in FIG. 6 where receptive member 58 is placed along body 12. Also shown in FIG. 1, the preferred body 12 has a surface print 26, which

enables the addition of various indicia. In the alternative, body 12 may have a surface for receiving stickers 28, and the like, as shown in FIG. 6.

FIG. 2 is a view of an exploded perspective of the preferred embodiment of container 10. The body 12 has a first fastening end 22 and a second fastening end 24. The first fastening end 22 removably attaches to cap 14 and second fastening end 24 removably attaches to cap 16. The removable attachments between cap 14 and end 22, and cap 16 and end 24 and cap 16 can be any attachment that provides a watertight seal. In the preferred embodiment, the end 22 may have male threads and attach to female threads on the cap 14, as shown in FIG. 2. A threaded connection allows the cap 14 to be repeatedly removed and replaced. Additionally, in the preferred embodiment, a first ring 32 is provided to further ensure a watertight seal between cap 14 and end 22. Likewise, in the preferred embodiment, end 24 may have female threads and attach to male threads on the cap 16, as shown in FIG. 2. A threaded connection allows the cap 16 to be repeatedly removed and replaced. Additionally, in the preferred embodiment, a second ring 34 is provided to further ensure a watertight seal between cap 16 and end 24. Those in the art would understand that the male and female arrangement can be interchanged between the respective ends 22, 24 and caps 14, 16.

In the alternative, those in the art would understand that many different closures that provide a watertight seal between the respective ends 22, 24 and caps 14, 16 may be utilized. For example, a frictional closure may be utilized in an alternative embodiment to secure cap 14 to end 22 and cap 16 to end 24. Friction between the respective caps 14 and 16 and ends 22 and 24 may be sufficient to retain the watertight seal without the aid

of threads. The first end 22 and the cap 14 may be configured to form there between a watertight seal when the cap 14 is in the closed position with respect to the body 12. To achieve this end, the first end 22 may be formed as an angled, annular surface that can be described as having a truncated conical shape. The presence of this angled, annular surface will, when the cap 14 is pressed there against, form a pressurized circular area of contact that will optimize sealing between the first end 22 and the cap 14. Those in the art will understand that a similar arrangement may be had between the second end 24 and cap 16. Another alternative embodiment would provide a circumferential ridge and groove arrangement used so that the caps 14 and 16 snap into place to the respective ends 22 and 24.

FIG. 3a is a view along line 3a-3a in FIG. 1 showing a tampon 11 being enclosed within first chamber A. While one tampon is shown for illustration purposes, it is to be understood that any number of tampons can be stored in chamber A. The first chamber A is defined by the inner wall 36 of body 12, which in the preferred embodiment is generally cylindrical in shape. In the preferred embodiment, the body 12, cap 16 and cap 18 are preferably made of acrylonitrile butadiene styrene (ABS). The preferred embodiment utilizes ABS because the material is an easily machined, tough, low cost rigid thermoplastic material with high impact strength. However, those in the art would readily understand the materials to be utilized for constructing container 10 can be any material that protects the contents of container 10 from crushing. Additionally, in the preferred embodiment, the first ring 32 and second ring 34 are preferably made of rubber; however any material may be utilized that aids in creating a watertight seal. As the

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preferred embodiment in shown in FIG. 3a, ring 32 aids in creating a watertight seal between first fastening end 22 and first cap fastening end 42.

FIG. 3b is a view along line 3b-3b in FIG. 2 showing the enclosed end 38 of the body 12. The enclosed end 38 permits separation of first chamber A, shown in FIG. 3a, from second chamber B and third chamber C, shown in FIG. 4. FIG. 4 is a view along line 4-4 in FIG. 1 showing pharmaceuticals 13 being enclosed within second chamber B and feminine wipes 15 being enclosed within third chamber C. As shown in FIG. 4, second chamber B is defined generally by second cap inner wall 39 and the first partition surface 52 of partition 50. Second chamber B is preferably shaped to accommodate receiving pharmaceuticals, feminine wipes or other catamenial related products. Also shown in FIG. 4 is third chamber C, which is generally defined by second cap inner wall 39 and second partition surface 54 of partition 50. Third chamber C is also preferably shaped to accommodate receiving pharmaceuticals, feminine wipes or other catamenial related products. As shown in FIG. 4, second ring 34 aids in providing a watertight seal between second cap fastening end 44 and second fastening end 24.

FIG. 5 is a view along line 5-5 in FIG. 4 further illustrating the partition 50 separating second chamber B from third chamber C, where second chamber B is defined generally as the area between the first partition surface 52 and inner surface 39, and where third chamber C is defined generally as the area between second partition surface 54 and inner surface 39.

As shown in FIG. 6, alternative container 10 is illustrated where the receptive member 58 is positioned along body 12. The receptive member 58 may be positioned

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anywhere along body 12, cap 14 or cap 16, and the receptive member 58 has an aperture 59, capable of receiving clothing, necklaces, swivel snap clips, key chains, backpacks, or the like, in order to allow active women more freedom and flexibility in their everyday affairs. However, as stated above, the receptive member 58 can be any type of
5 mechanism that permits attachment to clothing, necklaces, key chains, backpacks, or the like. Also illustrated are stickers 28 placed on body 12, which provides an additional decorative aspect of container 10.

Alternative embodiments of container 10, where the body 62 takes on additional shapes, allows for additional decorative aspects of container 10. Moreover, different
10 sized and shaped containers 10 permit all kinds of catamenial products to be placed therein. Additionally, those in the art would understand that the container 10 is not necessarily limited in the number of chambers waterproofably sealed therein, such that many different types of catamenial related products can be sealed therein. In one alternative aspect of container 10, as shown in FIG. 7, the body 62 takes a generally
15 triangular shape. FIG. 8 is a view along line 8-8 in FIG. 7 showing partition 70 separating pharmaceuticals 13 enclosed within alternative second chamber B' from feminine wipes 15 enclosed within alternative third chamber C'. In this alternative embodiment, alternative second chamber B' is defined generally as the area between the alternative first partition surface 76 and alternative second cap 66. As well, alternative
20 third chamber C' is defined generally as the area between the alternative second partition surface 78 and alternative second cap 66. Also shown in FIG. 8, alternative second cap 66 and alternative cap fastening end 74 of the alternative body 62 are reversibly affixed

to each other, which can be affixed in many different manners as described above, forming a watertight seal there between. Chambers B' and C' permit many different types of catamenial products to be placed therein and is not necessarily limited to the placement of feminine wipes or pharmaceuticals.

5 As similarly discussed above in the preferred embodiment, the alternative embodiment also has a surface (not shown in FIG. 7), which separates chamber A' from chambers B' and C'. FIG. 9 is a view along line 9-9 in FIG. 7 showing tampons 11 being enclosed within alternative first chamber A', where chamber A' is defined generally as the area beginning along the first cap fastening end 72 and continuing throughout the
10 body 62. This chamber A' permits many different types of catamenial products to be placed therein and is not necessarily limited to the placement of tampons. Also shown in FIG. 7 is a receptive member 68 positioned along body 12, although the member 68 may be positioned anywhere along body 62, cap 64 or cap 66. Additionally, the receptive member 68 has an aperture 69 capable of receiving clothing, necklaces, key chains,
15 backpacks, or the like, in order to allow active women more freedom and flexibility in their everyday affairs. However, as stated above, the receptive member 68 can be any type of mechanism that permits attachment to clothing, necklaces, key chains, backpacks, or the like.

 One of the main features of the inventive apparatus is that it enables a user to
20 carry multiple catamenial related items in a safe, clean, and orderly manner. One item that many women find particularly helpful is a moistened towelette 15. The wipe can be of any variety acceptable to the user but the inventor preferably contemplates a moistened

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towelette sized and packaged to fit in any of the chambers, A, B, or C. The inventor has developed a moistened towelette 15 (FIG. 11) that is individually packaged and sized to fit within second compartment 40 or third compartment 42. The moistened towelette 15 is housed in a sealed package 80 (FIG. 10) having a first package length L3 and a second
5 package length L4. Length L3 and length L4 are preferably 3 cm with a range of 2.5 cm to 4 cm being acceptable. The inventor has found that this range for the package is ideally suited for use with the apparatus while at the same time enables the package to contain a moistened towelette of sufficient size to be of value yet not so large as to limit the number of moistened towelettes that can be transported at any given time. As for the
10 moistened towelette 15, the inventor has found that a 10cm x 10 cm size is ideal; however the wipe can range in size from 4 cm x 4 cm to 12 cm x 12 cm and still fit the criteria of the package 54.

It is to be understood, however, that even though numerous characteristics and
15 advantages of the preferred and alternative embodiments have been set forth in the foregoing description, together with details of the structure and function of the embodiments, the disclosure is illustrative only, and changes may be made in detail, especially in matters of shape, size and arrangement of parts within the principles of the invention to the full extent indicated by the broad general meaning of the terms in which
20 the appended claims are expressed.